

Product datasheet for **RG230469**

STAT6 (NM_001178080) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	STAT6 (NM_001178080) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	STAT6
Synonyms:	D12S1644; IL-4-STAT; STAT6B; STAT6C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG230469 representing NM_001178080
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTCTGTGGGTCTGGTCTCCAAGATGCCCCAGAAAAAGTGCAGCGGCTCTATGTGACTTTCCCC
 AACACCTGCGGCATCTTCTGGGTGACTGGCTGGAGAGCCAGCCCTGGGAGTTCCTGGTCCGCTCCGACGC
 CTTCTGTGCAACTTGGCTAGTGCCTACTTTAGACACTGTCCAGCACCTTCAGGCCTCGGTGGGAGAG
 CAGGGGGAGGGAGCACCATCTTGAACACATCAGCACCTTGAGAGCATATATCAGAGGGACCCCTGA
 AGCTGGTGGCCACTTTCAGACAAATACTTCAAGGAGAGAAAAAGCTGTTATGGAACAGTTCGCCACTT
 GCCAATGCCTTTCAGTGAAGCAGGAAGAAGTCAAGTAAAGACAGGCTTGGGAGGCTGCAGCACCGA
 GTAGGGGAGATCCACCTTCTCCGAGAAGCCCTGCAGAAGGGGGCTGAGGCTGGCCAAGTGTCTCTGCACA
 GCTTGATAGAAACTCCTGCTAATGGGACTGGGCAAGTGAAGCCCTGGCCATGCTACTGCAGGAGACCAC
 TGGAGAGCTAGAGGCAGCAAAGCCCTAGTGTGAAGAGGATCCAGATTTGAAAACGGCAGCAGCAGCTG
 GCAGGGAATGGCCACCCGTTTGGAGAGAGCCTGGCCCCACTCCAGGAGAGGTGTAAAGCCCTGGTGGACA
 TTTATTCCAGCTACAGCAGGAGGTAGGGGCGGCTGGTGGGGAGCTTGAGCCCAAGACCCGGGCATCGCT
 GACTGGCCGGCTGGATGAAGTCTGAGAACCCTCGTACCAGTTGCTTCTGTTGGGCTTGGAGTTCCTGGGGG
 CAGGACTGAAGACTCAGACCAAGTTCAGGCTGGAGTTCGATTCTGTTGGGCTTGGAGTTCCTGGGGG
 CCCCAGCAAGCCTCCGCTGGTCAAGGCGGACATGGTGACAGAGAAGCAGGCGCGGGAGCTGAGTGTGCC
 TCAGGGTCTGGGGTGGAGCAGAAAGCACTGGAGAAATCATCAACAACACTGTGCCCTTGGAGAACAGC
 ATTCTGGGAAGTGTGCTCTGCCCTGTCAAGAAGCTGCTTCAAGAAGATCAAGCGGTGTGAGCGGA
 AGGGCACTGAGTGTGACAGAGGAGAAGTGCCTGTGCTTCTCTGCCAGTTCACACTTGGCCCCGG
 CAAACTCCCATCCAGCTCCAGGCCTGTCTGCCCCCTGGTGGTCATCGTCCATGGCAACCAAGACAAC
 AATGCCAAAGCCACTATCCTGTGGGACAATGCCTTCTCTGAGATGGACCGCTGCCCTTTGTGGTGGCTG
 AGCGGGTGCCTGGGAGAAGATGTGTAAACTCTGAACCTGAAGTTCATGGCTGAGGTGGGGACCAACCG
 GGGGCTGCTCCCAGAGCACTTCTTCTTCTGGCCAGAAGATCTTCAATGACAACAGCCTCAGTATGGAG
 GCCTTCCAGCACCGTTCGTGCTCCTGGTGCAGTTCACAAGGAGATCCTGCTGGGCCGTGGCTTCACT
 TTTGGCAGTGGTTTGTGGTGTCTGGACCTCACCAACGCTGTCTCCGGAGCTACTGGTCTGACCCGGCT
 GATCATTGGCTTCATCAGCAAACAGTACGTTACTAGCCTTCTTCTCAATGAGCCCGACGGAACCTTTCTC
 CTCGGCTTCCAGGACTCAGAGATTGGGGGCATCACCATGCCCATGTCATCCGGGGCCAGGATGGCTCTC
 CACAGATAGAGAACATCCAGCCATTCTGTGCCAAAGACCTGTCCATTGCTCACTGGGGGACCGAATCCG
 GGATCTTGCTCAGCTCAAAAATCTCTATCCCAAGAAGCCCAAGGATGAGGCTTTCGGGAGCCACTACAAG
 CCTGAACAGATGGGAAGGATGGCAGGGTTATGTCCCAGCTACCATCAAGATGACCGTGGAAAAGGGACC
 AACCACTTCTACCCAGAGCTCCAGATGCCTACCATGGTGCCTTCTTATGACCTTGGAAATGGCCCTGA
 TTCCTCCATGAGCATGCAGCTTGGCCAGATATGGTGCCCCAGGTGTACCCACCACACTCTCACTCCATC
 CCCCCGTATCAAGGCCTCTCCCAGAAGAATCAGTCAACGTGTTGTCAGCCTTCCAGGAGCCTCACCTGC
 AGATCCCCCAGCCTGGGCCAGATGAGCCTGCCCTTTGACCAGCCTCACCCCAGGGCCTGCTGCCGTG
 CCAGCCTCAGGAGCATGCTGTGTCAGCCCTGACCCCTGCTCTGCTCAGATGTGACCATGGTGGAAAGAC
 AGCTGCCTGAGCCAGCCAGTGCAGCGTTTCTCAGGGCACTGGATTGGTGAAGACATATTCCTCCTC
 TGCTGCCTCCACTGAACAGGACCTCACTAAGCTTCTCCTGGAGGGGCAAGGGGAGTCGGGGGGAGGGTC
 CTTGGGGGCACAGCCCTCCTGCAGCCCTCCACTATGGGCAATCTGGGATCTCAATGTCCACATGGAC
 CTAAGGGCAACCCAGTTGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG230469 representing NM_001178080
Red=Cloning site Green=Tags(s)

MSLWGLVSKMPPEKVQRLYVDFPQHLRHLLGDWLESQPWEFLVGSDAFCCNLASALLSDTVQHLQASVGE
QGEGSTILQHISTLESYQRDPLKLVATFRQILQGEKKAVMEQFRHLPMPFHWKQEELKFKTGLRRLQHR
VGEIHLREALQKGAEGQVSLHSLIETPANGTGPSEALAMLLQETTGELEAAKALVLKRIQIWKRRQQQL
AGNGAPFEESLAPLQERCESLVDIYSQLQQEVGAAGGELEPKTRASLTGRLDEVLRTLVTSCFLVEKQPP
QVLKTQTKFQAGVRFLGLRFLGAPAKPPLVRADMVTEKQARELSVPQGPAGAGAESTGEIINNTVPLENS
IPGNCCSALFKNLLLKKIKRCERKGTESVTEEKCAVLFSASFLLGPGKLPQLQALSLPLVVIHGNQDN
NAKATILWDAFSEMDRVPFVVAERVPWEKMCETLNLKFMAEVGTNRGLLPEHFLFLAQKIFNDNSLSME
AFQHRVSWSQFNKEILLGRGFTFWQWFDGVLDTKRCLRSYWSDRLLIGFISKQYVTSLLLNEPDGTFLL
LRFSDSEIGGITIAHVIRGQDQSPQIENIQPFSAKDLSIRSLGDRIRDLAQLKNLYPKPKDEAFRSHYK
PEQMGKDRGYVPATIKMTVERDQPLPTPELQMPMTMVPDYDLGMAPDSSMSMLGPDMPVQVYPPHSHSI
PPYQGLSPEESVNVLSAFQEPHLQMPSSLGQMSLPFDQPHPQGLLPCQPQEHAVSSPDLLCSDVTMVED
SCLSQPVTAFQGTWIGEDIFPPLLPPTEQDLTKLLEGGQGESGGGSLGAQPLLQPSHYGQSGISMSHMD
LRANPSW

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

ACCN:	NM_001178080
ORF Size:	2544 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info</p>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001178080.1 , NP_001171551.1
RefSeq Size:	3894 bp
RefSeq ORF:	2214 bp
Locus ID:	6778
UniProt ID:	P42226
Cytogenetics:	12q13.3
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - DSL/Notch pathway, Stem cell relevant signaling - JAK/STAT signaling pathway, Transcription Factors
Protein Pathways:	Jak-STAT signaling pathway

Gene Summary:

The protein encoded by this gene is a member of the STAT family of transcription factors. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein plays a central role in exerting IL4 mediated biological responses. It is found to induce the expression of BCL2L1/BCL-X(L), which is responsible for the anti-apoptotic activity of IL4. Knockout studies in mice suggested the roles of this gene in differentiation of T helper 2 (Th2) cells, expression of cell surface markers, and class switch of immunoglobulins. Alternative splicing results in multiple transcript variants.[provided by RefSeq, May 2010]